Notebook, N-01-01-18

new Book

January 18 1901

208 New Style -

Rogers pepperbox perfns,

Took perox ni + pressed it in press to a plate then took piece rogers + laid in mould burr up - Laid ni plate on it then put a Rogers on top of plate burr side down then pressed whole together —

This is put into a ni punched pocket,

Freddy says holes in Rogers closed up — next one he is going to grind top burrs off so the holes wont close

Empty grid 2.2

Wt of Ni + 2 Rogers 4.35
Wt of 2 " 1.65
2.70 wt of plate of Ni

NiO 7 pts
graf 3 pts,
moistened with KOH

Size plate $\frac{11}{16}$ X 2" $\frac{42}{1000}$ thick

1st Run —

427	140	124	134		10
432	127	114		11	
444	111	99		35	
451	62	54			
905	134	118	130		
910	114	102	112		
915	112	99		20	

$\frac{1}{32}$ grd

209 Empty 1.45
full 3.15

Hydrate Ni big batch,
boiled in Molten KOH
Drab colored—
Graf

$\frac{7}{3}$

Monstro KOH, pressed plate,
This stuff don't swell & is
changed instantly by Hypochlorite
to perox—

4.25
1.55
2.7

210 - Empty 1.55 $\frac{1}{32}$ grid
full 4.25

Nickel scale made in Muffle furnace 7

Grafite - 3

ground fine, moistened KOH

Moulded plate

NG Ward Oxley

Little

~~281~~ * — but it was wider plate than those in 1/32

1140	117	103		281		new Fe
1145	90	78				
~~132~~	~~[illegible]~~	~~88~~	~~114~~			4th peg
133	120	108	116			
135	120	107				
137	150	136	145			new Fe
140	137	124				
148	123	109.5				
2—	118	104	112		8	
210	116	103		76		
223	114	102	110	101	8	
235	113	100		124		
245	111	100	109	142		
303	109	98		175		
312	108	97	107	192	10	
321	107	96.3		208		
325	134	120	130		10	new Fe
330	130	116.3		224		
333	127	113		235		~~off~~ on
411	128	114		251		
419	110	97				
425	106	94		261		
430	104	93		270		
436	97	86		281		off —

Swelled to 160/1000

6.90
2.15
4.75

211 Empty 2.15
filled 6.9

Wide plate Extra ni plate 1.6
Per ox plate alone 3.15
Same as 208,
Except plate 52/1000

ni
743 grs

& Peroxide was washed well again & redried —

The Rogers has ends filed off - so they don't close up holes.

2.2 Peroxide

plate pressed 1st 150 atmos

then when Rogers put on 300 atmos —

1.4 met ni

moistened KOH

918	130	113	122		9	
930	118	104.3	112	24	7.7	
940	114	101	108	44	7	
950	112	98		63		
950	143	125	134		9	new Fe
10—	133	118	128	86	10	
1015	112	99.3	107	116		
1020	111	98		125		
1030	111	98		142		
1035	110	97		151		
1050	110	96	104	178	8	
1055	109	96	104	187		
11—	108	95.7		196		
1105	107	95		205		
1105	146	127				new Fe
1112	131	116	128	221		
1120	130	114		238		
1130	120	106		259		
1133	112	98		269		
1140	103	92		278		

157/1000

~~212 Empty 1.6~~

~~full 3 1.4~~

~~Crystalized Hydrate Ni 7~~

~~Graf 3~~

~~Moistened KOH~~

~~1/32 grid~~

~~pressed plate~~ ~~Plate 35/1000 thick~~

~~I notice 194 dont swell so I have put this in water with few drops KOH & let her go all night~~

745	124	110				
~~Went down~~			~~to 6~~	~~V in~~	~~2 min~~	

found that above is impure & lot came out in outside of grid —

300
186
114

213 Empty 1.6 $\frac{1}{32}$ grd
filled 3

Big Lot Ni Hydrate Boiled 2 days 9
Graf 3

Moistened water, ground fine.

Ox in ½ % KOH, pressed plate. –

~~[illegible]~~

150 52	145	126 60			

927	122	110			
936	112	101			
945	104	93	106	33	
950	100	88		41	off
955	90	52		49	
10	87	77		56	

214 Empty 1.5

full 2.7 Impure

Peroxide Ni 7

graf 3

Moistened Water: pressed plate

33/1000 thick

I notice some green comes out also some black which was probably once green stix to outside of grid — ~~also some~~ ~~[illegible]~~ — Perox is impure

147	140	120	132			
1148	←	160				
215	132	114	121		7	off 60/1000
220	100	84				
258	135	118	124		6	lowest yet
02	112	98	105	8	7	
04	98	86				new Fe
35	120	104				
06	100	88		14		off
145	147	128	140			
54	90	80				
24	138	123	130		7	
30	122	108	115		7	
35	119	105.5	103	23	7	
40	114	100	110	33		
41	128	114				new Fe
50	105	92				off at 11 - put it in 20% KOH
	83	74				

410	128	119		85	
420	103	91		105	
421	85	79			

off

Crowding Thickness [illegible] of [illegible] —

72/1000

Wideplate

215 = Empty 213
full 5

Extra nickel plates before pressing on 113
Peroxide plate 114
Ni peroxide 7 graf 3 moistened with water —
This is two Rogers plates with burrs off - faced & moulded in plate
plate before going in grid faced with Rogers plates. 38/1000

Grid with plate in 47/1000 —
1% KOH, after 2 hours put in 1% then in 1 Hour 2%
[illegible] [illegible] plate had been pressed without Rogers it would be 30/1000

After being on all saturday night gave on few mah — & put it in 20% KOH Sunday night 515.

118	135	118	126		8	
125	118	101				
125	150	132	143			new Fe
140	132	117	127		10	
150	127	112	122		10	
403	110	98	108	97	10	off
410	60					
328	148	133				
340	131	118		27		
350	124	110		48		
400	110	98		65		
402	136	121		67		new Fe

216 Empty

grid Callipers 49/1000 filled

Dup of 215 - as asbestos not pkd or wound in in 215

filled Empty : 2.2 / 51.15 -

thickness with Rogers plates 40/1000

Leaving perox plate 32/1000

perox Ni 7
graphite 3
Moistened with Water -

Wide plate

Put in 2% KOH + I guess it will swell more than 215

04	136	120	130		
10	50	44			
935	136	120	130		10
940	120	107			
947	118	104	113		9
5-6	114	101			
005	102	90		58	
006	64				

good deal of stuff Came out

put it in 20% KOH
1030 -

~~217 Empty 1.65 $\frac{1}{32}$ grs~~
~~filled 2.80~~

~~Ni Oxide Ni_3O_4 $\frac{7}{3}$ made by Chemist~~
~~Grafite~~

~~pressed dry~~

~~plate 30/1000—~~

~~Blue precip comes out~~
~~[illegible] readily made~~

~~Impure lots green Hydrate comes out,~~

12	122	109	118		9
17	90	80			

115	100	96				new Fe
115	120	116				
120	123	110		131		
125	122	108		141		
130	117	104		151		
135	110	97		160		
140	94	74		168		off

120/1000

Ni_2O_3 to NiO_2
3.4 grm per amh

5
V
6 3/8
V/9

218 Empty 2.3
filled 6.250
Wide grid
Callipers 58/1000

Rogers plate armor 48/1000 — wt 1.3
Ni perox 40/1000 " 2.65

This peroxide is made by making a warm dilute solution of sulphate Nickel & precipt by our Hypochlorite washed on filter only - dried all night on steam bath & ground fine pressed plate, moistened 50% KOH, put right in 20% KOH

Ni_2O_3 7
graf 3 —
old plate 8/16 wide
This " 11/16 "

1—	132	125	135		10	
06	130	115				
15	115	101				
27	60					off
248	138	132				
1—	130	118				off from 11 till 1224
224	133	118				
238	111	100		54		
242	110	98		61		
250	110	97.5		76		
—	107	95		94		
05	106	94		103		
05	122	110				new Fe ☞
0	117	103		113		

560
25
2/35
13

219 — Empty | 50/1000 2.125
full 5.8

Rogers armor 42/1000 1.4
Big lot Hy Ni treated twice Hypo.
2nd time ground fine — 7/3
graf
moist KOH 50% pressed
Ni plate alone 34/1000 — 20% KOH

436	132	119	123		4	
446	120	107	114	20	7	
451	116	103	110	30	7	
455	113	102		38		
5—	112	100				
5—	137	122	132		10	new Fe
505	130	117	127	58	10	
511	130	115.5		71		
518	127	113		84		
525	126	111		100		
530	123	109	122	110	13	
540	114	102		130		
543	110	86		136		
543	128	113		~~136~~		new Fe
550	122	108		151		
555	120	104		161		
6—	100	90		170		off —
758	134	130	140			
806	133	120	130	18	10	
813	127	114		37		
825	113	102		57		
830	111	100				
831	130	116		69		new Fe
840	125	112	124	88	12	
851	119	106		110		
955	114	102		117		
957	125	112		120		new Fe
1005	118	105		136		
1010	107	94		146		
1015	92	82		154		

98/1000

lost some

Ferrate of K dont work well as
deplzr in Lalande

Ferrate Barium gives 28 @ .30 V
2nd pcs with Zinc after 20 minutes
Lalande -

220 grid Empty 2.25

filled 54/1000 6.7

Rogers plate 46/1000 — 1.5

Iron " 38/1000 2.95

wax 7 -

grafite - 3

This scale Ox made from Terne plate Ox in Whiffle several hours big lot Moist with 50% KOH, pressed & armored ~~with~~ Rogers grid & put in Reg grid Wide plates,

452	123	118				
5	110	97				
506	100	88				
515	76	69		30		off -
						Been Oxdz it
						all night

255

221 Empty 2.25

filled Calipers 61/1000

Rogers permanent plate $\frac{52}{1000}$ 1.6

Big lot Hy peroxidized 3rd time.
plate $\frac{44}{1000}$ 2.55

" "
7 pts

Graf— 3 | "

Moistened 50% KOH

142	143	128	140		12	Considerable
210	127	113	124	63	12	Current of grid
215	124	112	—	73		by overcharging
220	122	110		80		
225	121	108.3	120	93	12	
235	117	104		113		
240	113	100				
240	120	107		123		new Fe – ng —
254	85	76				
255	127	114		150		new Fe
3 —	122	109		160		
305	113	101		170		
310	100	91		179		
315	98	87		187		
320	93	82		195		
323	92	90				new Fe off
325	70	70.				

101/1000

3200
2
64
640
704

2220

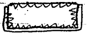
22
154
144
616
616
6870
670
(9.2
245
221
2
171

222 Rogers on ni plate 55/1000

~~wt of Ro~~
actual wt material 2.35

Perox by Hypochlorite from big lot hydrate 4th time of Hypo —

It was too moist with 50% KOH,



made this way —

7 pts Perox
3 " grafite.

740	140	124	133		9	
746	130	115				
755	122	108	120		12	
805	110	96				
805	137	120	132		12	new Fe
811	129	114		65		
815	128	112.5		73		
820	126	112		84		
825	124	111		94		
838	122	108		121		
853	119	106		151		
903	118	104.5		172		
910	117	103.2		185		
920	113	100		204		
930	103	91		221		
934	80	72				
930	82	72.2				new Iron 2nd Run
1257	140	132				
115	130	113	126	40	"	
130	123	111		72		
140	121	107		93		pby too moist as stated above
151	113	98		115		its the Ni
2	107	94		131		
223	87	77		168		
245	52	47				

926	143	128				219 mi
945	130	116		48		
955	124	112		64		
1005	107	95		83		
1015	104	94		101		
1025	100	88	102	118	11	average 11[illegible] volts
1030	95	[illegible]		126		104
1035	90	79		134		new ni 222
1043	62	54		144		
1045	120	106		146		
1050	112	98		155		
11	103	92		173		
1105	102	90		181		
1110	97	84		189		
1120	65	57		206		off

223

$\frac{1}{32}$ grid

This is iron scale from Norway iron got very hot & hammered,

grid Empty 1.165
full 3.15

Fe 8
graf 2

Moistened KOH 50%
Broken 3 pieces, very brittle plate don't act like others, lots come out grid —

347	130	116	130			226 mi
356	124	112	128	17		
408	120	108		43		
415	119	106		57		
425	73	66		~~71~~		
426	137	124		74		new ni
446	120	106	122	114		
455	117	62		125		
456	127	114				new ni
5	123	112		134		
515	120	106		164		
520	111	100		174		
525	104	94		182		
530	103	94		191		fine —
540	101	92		208		
545	100	90		216		
550	98	89		225		
555	98	88		233		
6	96	88		241		
610	93	86		257		
624	89	80		277		
[illegible]	77	70		286		off

Req $\frac{1}{32}$ grid

224 Empty 1.65

filled $\frac{46}{1000}$ 31.75

Norway Iron Scale high heat 38/1000

Fe 8
Graf 2

Moistened 50% KOH, pressed hard – with screw press –

with strong Current commences showing out, reduced Ct –

832	125	113				
830	120	110	122		12	
840	116	104		36.		
845	100	88		45		
850	93	94		53		off

225

$\frac{1}{32}$ Reg grid

Empty 1.6
Full 4.15 feed 55/1000 –

Scale from Norway Iron at Melting heat. 8

Graf 2

Moist 50% KOH, ground very fine moulded in screw press
Broken.

155	122	109				
203	70	60				
204	140	128				new ni 219
210	132	120		29		
215	128	116		40		
232	122	110		75		
250	102	91		109		
300	98	87		125		
310	92	82		157		
323	53	39				
327	118	114				new ni 226
335	102	90		189		
340	80	72		204		off
[illegible]		after all night				
805	138	122.5				Copper ni grid – ng ammonia killed it –
820	123	111		32		
835	113	100		62		
840	110	95		71		
841	125	114				new ni
852	110	98		92		
9	107	94		107		
905	104	92		115		
915	100	89		132		
924	100	89				
924	115	102		148		new ni

Bright peroxided 4 times, then ~~2~~ treated with ammonia filled &
washed water, Considerable Ni or
something Came out,

Empty 2.2
filled 5.8 48/1000

Ni 7
graf 3
washed 50% KOH
Rogers plate 40/1000 1.6

pressed in a new press —

852	146	130	142		12	
901	129	116	127	20	11	
920	108	94		57		
921	130	118	132			new Fe
940	80	72		102		066

Dont seem to be good

This is ng

227 Empty 1.35 $\frac{1}{32}$ grid Rig

filled 4.1 56/1000

Tool steel scale 47/1000

Fe_2O_x 8

graf 2

Moist KOH 50%

⊖ screw press

only been on 40 min 100 ma

605	137	123	134		11	1st with 222 ni
610	107	96		10		
615	100	90		19		
620	97	86		27		
630	80	72	80	42	8	
943	140	125	134		9	2nd to see Twombly
944	off					
5 718	124	114				
130	100	90		22		
135	100	88		30		
148	88	80		43		
153	82	74			—	off

1/32 Req[illegible]

228 Empty 1.15

full 4.05 58/1000

Cast Iron scale 50/1000

Ox 8

Graf 2

Moistened 50% Koh

Screw press

745	140	126	138		12	
720	127	115	123	11	8	
8	107	96		30		
810	100	90		46		
815	97	87		54		
820	92	84		62		
825	88	80		69		off
1123	151	131				
1147	130	116		50		
12	110	87		71		
1203	125	111				[illegible]
1222	109	96		108		
1234	103	91		131		
1248	83	74		162		
1255	64	56				

7/6/48

229 New Big grid

Empty 4.8
filled 7.6 — 40/1000

Big lot 4th time Hypo — no NH3 —
ground twice
9-cif
moistened KOH 50%

7/3

250	130	134	144			
307	129	117		40		
315	127	114		55		
325	121	110	122	75		
340	109	97		104		
350	108	96.5		122		
402	105	95		144		
417	99	90	100	174	10	
425	90	82		187		
426	117	104		187		new Fe replaced
435	70	62				

$\frac{1}{32}$ grid

230 Empty 1.165
full 3.165 40/1000

Tool steel scale left in oil
at high heat ground fine
[illegible]
[illegible]

8
2

[illegible]
[illegible]

4 00
1 45
2,55

231°

1/32 gird

Empty 1.45
filled 1.45

[illegible]

Boss

435	147	122	144	
447	136	121		
5	130	117		56
510	127	114		78
522	121	108		102
530	108	96		
537	120	106		120
547	104	94		144
551	102	92		153
605	97	86		168
619	70	60		187

new ni

66 —

The [illegible] 231
is good for 300
avg is only for
168 =

Big nickel plate —

302	132	118	143	
340	114	102		78
350	112	100		96
402	110	96 13		118
412	107	94		136
425	95	83		158
433	60	50		168

new ni

434	130	116
446	118	104
450	115	101
5	110	97
510	110	95
520	104	92
530	102	90
540	98	86.5
550	94	82.2
552	85	73

25	190
35	201
52	220
70	238
88	256
105	273
121	289
137	305

55

231 off - 230 on

Big ni back